Request to Archive
With The National Centers for Environmental Information
For SSMI(S) HYDROLOGICAL PRODUCTS
Provided by NCEI

2017-04-17

This information will be used by NCEI to conduct an appraisal and make a decision on the request.

1. Who is the primary point of contact for this request?

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2. Name the organization or group responsible for creating the dataset.

NOAA NCEI CWC Dataset Section

3. Provide an overview summarizing the scope of data you want to archive. Describe the outputs, data variables, including their measurement resolution and coverage.

This is the binary version of DSI 3652_01:

Satellite Time (binary only):
Equatorial crossing time for 1.0-deg, 2.5-deg, gpcp-input domains; can be:
-"early"-denotes crossing time of 0800-1100 local time
-"late"-denotes crossing time outside of 0800-1100 local time
-"dual"-combination of early and late constellation
Satellite (netCDF only):
Satellite providing data for pentad domain
- "f16", "f17", "f18", etc.
Product:
-"cfr" - Cloud Fraction
-"ice" - Sea-ice Cover
-"lwp" - Liquid Water Path*
-"pf1" - Precipitation Fraction Alg #1
-"pf2" - Precipitation Fraction Alg #2
-"pr1" - Precipitation rate Alg #1 *,**
-"pr2" - Precipitation rate Alg #2 **
-"snw" - Snow Cover
-"ssa" - Satellite Sample Fraction **
-"wvp" - Water Vapor Over Oceans
-"tpw" - total precipitable water *
-"sn-bw" - Snow Imagery (North & South Pole snow cover)* imagery only
-"sn-color" - Snow Imagery (North & South Pole snow cover)* imagery only

4. What is the time period covered by the dataset? (YYYY-MM-DD, YYYY-MM or YYYY)
From 1987
Ongoing as continuous updates to the data record

5. Edition or version number(s) of the dataset:
V01 (this is the binary version of DSI 3652_01)

6. Approximate date when the dataset was or will be released to the public:
2017

7. Who are the expected users of the archived data? How will the archived data be used?
Key input to the Univ. of Maryland GPCP NOAA CDR (high priority dataset in the satellite precipitation field produced by Bob Adler)
Input to NOAA CPC Diagnostic Bulletin (http://www.cpc.ncep.noaa.gov/products/CDB/)
Input to NOAA CPC Merged Analysis of Precipitation
(http://www.cpc.ncep.noaa.gov/products/global_precip/html/wpage.cmap.html)

Xie P., and P. A. Arkin, 1996: Global precipitation: a 17-year monthly analysis based on gauge observations, satellite estimates, and numerical model outputs. Bull. Amer. Meteor. Soc., 78, 2539-2558.

Ferraro, R., N. Grody, D. Forsyth, R. Carey, A. Basist, J. Janowiak, F. Weng, G. F. Marks, and R. Yanamandra (1994), Microwave measurements produce global climatic, hydrologic data, Eos Trans. AGU, 75(30), 337-343, doi:10.1029/94EO00988.

Vila, D., Hernandez, C., Ferraro, R., & Semunegus, H. (2013). The performance of hydrological monthly products using SSM/I-SSMI/S sensors. Journal of Hydrometeorology, 14(1), 266-274.

Vila, D., Ferraro, R., & Semunegus, H. (2010). Improved global rainfall retrieval using the Special Sensor Microwave Imager (SSM/I). Journal of Applied Meteorology and Climatology, 49(5), 1032-1043.

8. Has the dataset undergone user evaluation and/or an independent review process? Did NCEI participate in design reviews?
This data is already archived at DSI 3652_01 several years ago and was determined to have important customers depending on the output. It's had the same users since 1994.

9. Describe the dataset's relationship to other archived datasets, such as earlier versions or related source data. If this is a new version, how does it improve upon the previous version(s)?
It's very important to note that the current DSI 3652_01 is a netCDF version of this binary submission. The netCDF data is produced from this binary data, therefore it's important that the AAC consider archiving the original binary data which the users want. The key users I cited previously do not want the netCDF version (newer users do like the netCDF version) and are not willing to change their process since it can cause operational delays on their end (and can come back to NCEI as a formal complaint).

10. List the input datasets and ancillary information used to produce the data.
NESDIS-Navy SSMI and SSMIS antenna temperature (TDR) from CLASS

11. List web pages and other links that provide information on the data.
https://www.ncdc.noaa.gov/oa/rsad/ssmi/gridded/index.php

12. List the kinds of documents, metadata and code that are available for archiving. For example, data format specifications, user guides, algorithm documentation, metadata compliant with a standard such as ISO 19115, source code, platform/instrument metadata, data/process flow diagrams, etc.

1. Please refer to DSI 3652_01 for this existing inf: https://www.ngdc.noaa.gov/docucomp/page?xml=NOAA/NESDIS/NCDC/Geoportal/iso/xml/C00793.xml&view=getDataView&header=none

13. Indicate the data file format(s).

1. Binary

14. Are the data files compressed?

No

15. Provide details on how the files are named and how they are organized (e.g., file_name_pattern_YYYYMM.tar in monthly aggregations).

ftp://eclipse.ncdc.noaa.gov/pub/ssmi/monthly_ncdc/ (no longer being updated since eclipse FTP server removed)

16. Explain how to access sample data files and/or a file listing for previewing. If it is not available now, when will it be available?

Not available right now because eclipse FTP is not used for this purpose anymore. Would like to now make it available through AIRS (HTTPS). Previous access source was here: ftp://eclipse.ncdc.noaa.gov/pub/ssmi/monthly_ncdc/

17. What is the total data volume to be submitted?

Historic Data: all historic data or data submitted as a completed collection.

Total Data Volume:	11GB
Number of Data Files:	352

Continuous Data: data volume rate for a continuous data production.

Total Data Volume Rate:	25KB per Month
Data File Frequency:	20 per Month
Data Production Start:	1987

18. Are later updates, revisions or replacement files anticipated? If so, explain the conditions for submitting these additional data to the archive.

No additional updates, revisions or replacement data are anticipated.

19. Describe the server that will connect to the ingest server at NCEI for submitting the data.

Physical Location:	Asheville, NC
System Name:	Sleet
System Owner:	DOC/NOAA/NESDIS/NCEI > National Centers for Environmental Information, NESDIS, NOAA, U.S. Department of Commerce
Additional Information:	

20. What are the possible methods for submitting the data to NCEI? Select all that apply.

1. FTP PUSH

21. Identify how you would like NCEI to distribute the data. Web access support depends on the resources available for the dataset.

1. Direct download links
2. Advanced web services (e.g., THREDDS Catalog Service)

22. Will there be any distribution, usage, or other restrictions that apply to the data in the archive?

No known constraints apply to the data.

23. Discuss the rationale for archiving the dataset and the anticipated benefits. Mention any risks associated with not archiving the dataset at NCEI.

This product is a key input data source for the Global Precipitation Climatology Project (GPCP) and is used to detect anomalies in precipitation patterns on a global scale. These products are useful for evaluating mean global precipitation, its interannual and seasonal variations, and the detection of anomalies associated with large-scale (e.g. ENSO, Arctic Oscillation) and regional climatic variations. Current users include members of the GPCP and the Climate Prediction Center, as well as various academic/government researchers nationally and internationally.

If we do not archive and make this dataset accessible publicly, then the key users previously mentioned will have major interruptions in their operational products and this will cause high-level complaints to NCEI management.

24. Are the data archived at another facility or are there plans to do so? Please explain.

The netCDF version (3652_01) is already archived here

25. Is there an existing agreement or requirement driving this request to archive? Have you already contacted someone at NCEI?

No

26. Do you have a data management plan for your data?

No

27. Have funds been allocated to archive the data at NCEI?

NCEI CWC Base funding
This is the same level of effort for me to product this dataset.

28. Identify the affiliated research project, its sponsor, and any project/grant ID as applicable.

N/A

29. Is there a desired deadline for NCEI to archive and provide access to the data?

Archive by:	2017-05-31
Accessible by:	2017-07-31

30. Add any other pertinent information for this request.

Here are the reasons that AAC should strongly consider archiving this dataset:
1) the existing netCDF data that's archived was processed from these binary variables
2) the key users (UMD and CPC) need this binary version for their operational output and any interruption will have large consequences downstream
3) The level of effort is relatively low for DSD staff since there's an existing dataset that mostly describes this

submission.